

Safety, Quality of Life, and Economic Consequences of Weather and Climate-related Events on Coastal Areas in Virginia

Presented to:

Joint Commission on Technology and Science

Presented by:

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Introduction to VASEM



- An Honorific Society Established to Provide Scientific, Technical and Health Advice to the Virginia Legislature and Executive Government
- Modeled After the National Academies of Sciences, Engineering and Medicine and its Executive Branch, the National Research Council

• Founded in 2013 Under the Sponsorship of U.S. Senator Mark Warner and the Presidents of Several Virginia Universities

- Over 150 Members, all Virginia Residents, and all Peer-nominated and Elected Based on Professional Accomplishments Alone
- 90% Are Also Members of One or More of the National Academies
- Organizes Symposia, Internships and Carries Out Directed Studies
- Non-Profit, Members Contribute Their Time Pro Bono



Study of the Consequences of Weather and Climate-related Events on Coastal Areas



- HJ47/SJ38 Directs the Joint Commission on Technology and Science to Study the Safety, Quality of Life, and Economic Consequences of Weather and Climate-related Events on Coastal Areas in Virginia
 - Study Proposal Briefed at the 4 December 2019 JCOTS Meeting in Blacksburg, VA
 - Resolution Patrons: Delegate Sickles and Senator Cosgrove ... Budget Amendment Patrons: Delegate Sickles and Senators Ebbin and Cosgrove

• Focus Areas:

- 1. Frequency or Probability of Events and their Near-term, Medium-term, and Long-term Impacts
- 2. Displacement, Economic Loss, and Damage to Health or Infrastructure
- 3. Areas and Number of Citizens Affected
- 4. Remedies and Mitigations, their Cost and Effectiveness
- 5. Degree of Certainty of our Knowledge of the Above
- 6. Technical Resources Available for Remedies and Mitigations and to gain Knowledge of their Effectiveness and Cost

Conduct of Study

- Departure Point: Over Three Dozen Presentations to the Joint Subcommittee on Coastal Flooding and its Predecessor
- Additional Presentations, Questions and Discussion with Past and New Presenters and Subject Matter Experts
- A Study Board Receives the Presentations and Examines Old and New Material to Synthesize a Holistic Set of Answers to the Above Questions

Study Progress Report



- Original Pre-COVID Schedule Based on Completion of the Meetings by December of 2020 May Not be Achievable
 - Traditional Face-to-face Meetings With Presenters and Subject Matter Experts, as Well as Study Board Deliberations Will Have to Begin, or Perhaps Even Conclude via Zoom or Similar Means
 - Fifteen Invitations to Membership in the Study Board Sent, 9 Acceptances
 - Six to Ten Additional Invitations Will be Sent in the Next Two Weeks
 - First Board Meeting to Issue Invitations and Questions to Initial Presenters
- Accepted Study Board Members:
 - Jon Goodall, Professor, UVA, Co-chair
 - Antonio Elias, NAE, VASEM Secretary, Co-chair
 - Ann Phillips, USN (Ret), Office of the Governor
 - Jen Irish, Professor, Virginia Tech
 - Elise Miller-Hooks, Professor, GMU
 - Emily Steinhilber, Professor, ODU
 - Lewie Lawrence, Middle Peninsula PDC
 - Bob Lazaro, NOVA Regional Commission
 - Jason El Koubi, VEDP

- Invited Study Board Members:
 - Senator Lynwood Lewis
 - Senator John Cosgrove
 - Mark Luckenbach, VIMS
 - Bill Leighty, VCU
 - Kit Chope, Port of Virginia
 - Chris Stone, Clark Nexen
- To Be Invited ... Representatives from:
 - US Navy, US Army Corps of Engineers, Virginia Bar Association